

OPERATING INSTRUCTIONS

FOR THE

L & R MASTER WATCH CLEANING MACHINE

Your L & R Master Watch cleaning Machine is the product of the world's largest manufacturer of watch and instrument cleaning machines. It is built to give years of satisfaction. The following instructions should be carefully read in order to familiarize yourself with its operations.

This machine is completely wired and ready for immediate use. It operates on 115V AC-DC.

In shipping, paper and dust may accumulate in the jars. After removing the jars from the shipping carton remove the side baffles and stars carefully from each jar. Wash the jar and dry thoroughly with a clean lint-free cloth. Replace the star in each jar, first making sure that it rests firmly on the bottom. Replace the side baffle carefully with the vertical arm against the side of the jar.

Before replacing in the machine, the solutions should be poured into the jars. In one, pour enough L & R EXTRA FINE Watch Cleaning Solution to fill the jar to the middle of the letters "L & R" stamped on the jar. In each of the other two, pour the same quantity L & R #3 RINSE SOLUTION. Place the jar containing the L & R EXTRA FINE Watch Cleaning Solution in the opening on the right of the machine and the two jars containing L & R RINSE in the other two openings. The covers should be placed on the jars and remain on the jars at all times, except when the cleaning basket is in the jar. One filling of the jar (that is, about ½ quart in each jar) will clean approximately 40 watches.

Raise the motor assembly to the top of the column and swing it slightly so that it rests on the column shoulder. Tighten the handle. You will find this is the handiest position for the removal and attaching of the basket. The handle should be tightened at all times when the basket is in the jar, in the spinning-off position or in the drying chamber.

We recommend the complete disassembly of all watches to be cleaned.

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Place the plates and larger parts in the bottom basket. Avoid placing two large flat surfaces together in the basket. The balance, train wheels, escapement and screws are placed in the dented compartments of the basket tray. The cover should be placed on the basket with the flatter side down. Attach the basket to the fanwheel and shaft by holding onto the basket frame. Do not attach by holding the mesh, as the pressure of your fingers may distort it.

Lower the motor and basket assembly into the jar containing L & R EXTRA FINE Watch Cleaning Solution so that the rubber seal top is firmly seated in the jar. Tighten the handle and you are ready to start the cleaning process.

At this time turn on the heater in the drying chamber, which is operated by the switch on the left side of the machine. The pilot light will indicate when the heater is on. Turning the heater on at the start of the cleaning operation will allow it to reach the maximum heat by the end of the cleaning cycle. Do not try to build up more heat by placing one of the jar covers over the heater chamber while the basket is in the jar.

Start the operation of the basket by turning the rheostat knob clockwise. Current fluctuations or weight of parts in the basket may cause the degree of turning to vary. Turn the rheostat until the basket revolves at a moderate rate of speed. It is never necessary to operate the motor at the highest possible speed for good watch cleaning. A moderate speed will give effective cleaning action and the motor should never be run at a high enough speed to cause solution to spread from the center of the basket up the side of the jar. The fanwheel and shaft blades should be covered by the solution at all times.

While the time of cleaning will vary with the condition of the watches which are to be cleaned, the suggested time for cleaning and rinsing in each jar is approximately three minutes. Your own judgment and experience will very quickly tell you how long is necessary to run a watch for proper cleaning results.

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The reversing action of your machine is controlled by the switch on the right side of the machine. Reversing the basket in solution breaks the flow of the solution and it gives a much better cleaning action. Reverse the basket several times while in each jar. Do not use the reverse switch when the basket is in the spin-off position or in the drying chamber.

After the cleaning period, turn the rheostat knob counter-clockwise as far as it will go, which is the off position. Raise the motor assembly until the basket is about $\frac{1}{2}$ ' above the solution level. Spin off the surplus solution quickly at a fairly high rate of speed. A good method is to turn the rheostat on and off two or three times. This will give you a speed-up action to take the surplus solutions off the basket and, thereby, keep your rinses cleaner. Immediately after spinning off, move the motor assembly into the next jar. Repeat the same procedure in the two rinse jars as in the cleaning jar. Then place the basket assembly over the drying chamber and lower it until it rests on the stop provided in the column. Again turn the rheostat on and allow the basket to revolve at a slow rate of speed for perfect drying. This operation also should take approximately three minutes.

Your machine can operate at it's highest efficiency only with the use of the finest watch cleaning solutiona made especially for the machine. L & R Watch Cleaning and Rinsing Solutions are made for each other and for use in the L & R Machine.

L & R Solutions are inflammable mixtures. With the exercise of ordinary care, they are perfectly safe for use in the L & R Watch Cleaning Machine. L & R Solutions are approved for use in L & R Watch Cleaning Machines by the New York City Fire Department and carry Certificate of Approval #1204. Do not use highly inflammable cleaning agents in your machine. Cleaners, such as gasoline, benzine and benzol will ignite very readily and we strongly urge you not to endanger you life or your shop by their use. Carbon tetrachloride should also be avoided as it is extremely toxic and corrosive.

THE MOTOR HAS PRELUBRICATED BALL BEARINGS
AND NEVER REQUIRES OILING... KEEP YOUR JARS
CLEAN...WHEN CHANGING SOLUTIONS THE JARS

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SHOULD BE WASHED EACH TIME AND THOUROUGLY DRIED...THE JAR TOPS SHOULD BE WIPED OFF OCCASIONALLY AND SHOULD NEVER BE INTER-CHANGED...ALWAYS TIGHTEN THE HANDLE IN EACH POSITION...KEEP JARS COVERED AT ALL TIMES...DO NOT PLACE A JAR COVER OF ANY OTHER COVER OVER THE HEATING CHAMBER...AVOID PLACING LARGE FLAT SURFACES TOGHETHER IN THE BASKET...DO NOT RACE THE MOTOR...KEEP YOUR MACHINE AND BENCH CLEAN...AVOID SPILLING SOLUTIONS ON THE MACHINE...USE WITH ADEQUATE VENTILATION.

You will note that there are pins in the fanwheel and shaft for holding the clock cleaning basket and inserts which are available to you for multiple watch cleaning and cleaning small clocks. This may be obtained from your jobber.

Do not hesitate to write us about any specific question in regard to your machine or watch cleaning. Please give motor serial number when writing.

L & R MANUFACTURING COMPANY

Main Offices and Plant

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